

373.42  
B85r



# REPORT ON SECONDARY & TECHNICAL EDUCATION IN THE BOROUGH OF PLYMOUTH.

1915.

BY

CHAS. A. BUCKMASTER,  
*M.A., Lincoln College, Oxford.*

*late Chief Inspector and Assistant Secretary  
of the Board of Education.*

THE LIBRARY OF THE

JULY 24 1924

PRICE ONE SHILLING.  
PRINTED BY THE UNIVERSITY PRESS



EDUCATION  
DEPARTMENT



UNIVERSITY OF ILLINOIS LIBRARY  
MAY 24 1921

# REPORT ON SECONDARY & TECHNICAL EDUCATION IN THE BOROUGH OF PLYMOUTH.

---

1915.

---

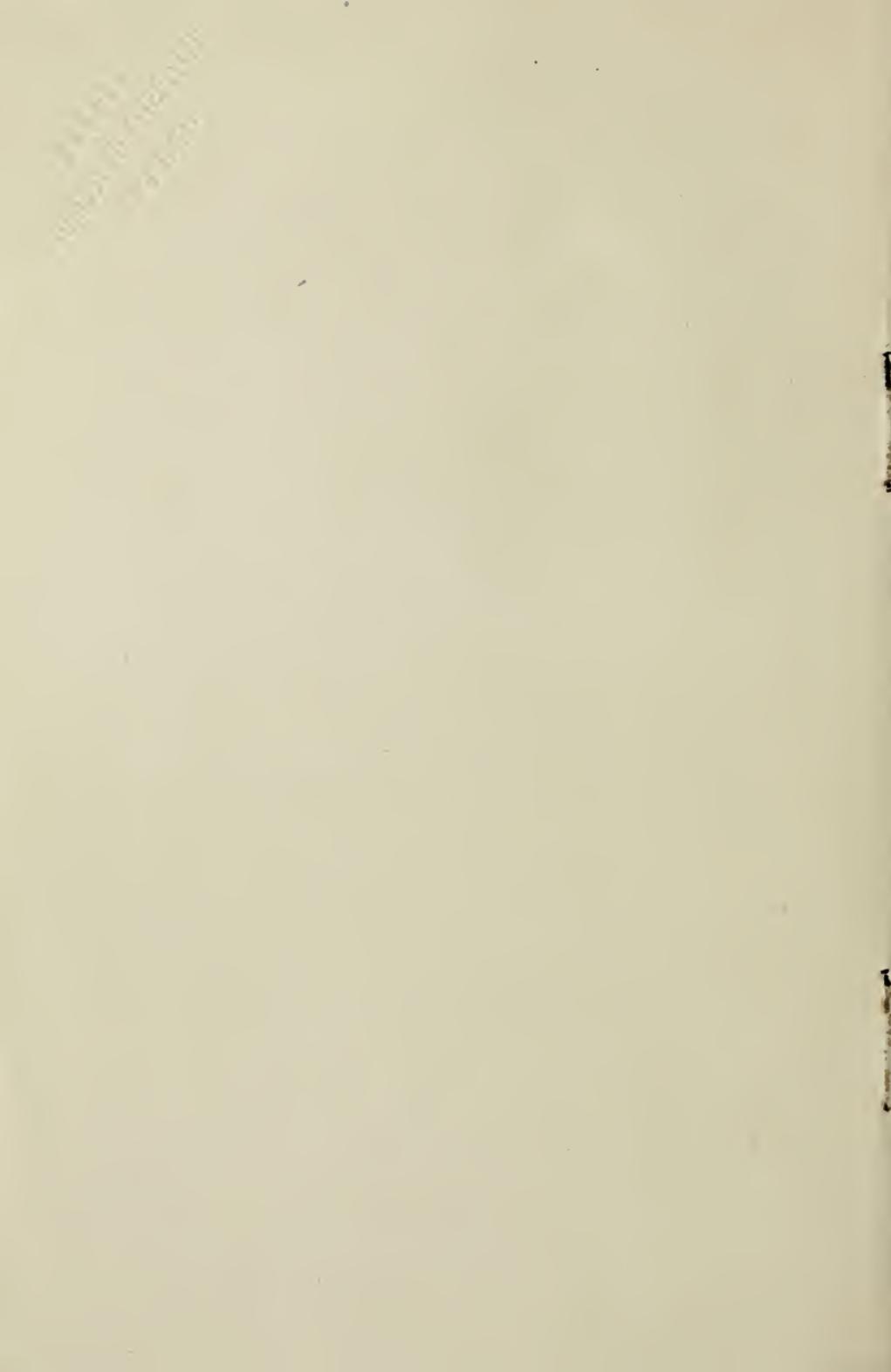
BY

CHAS. A. BUCKMASTER,  
*M.A., Lincoln College, Oxford.*

*Late Chief Inspector and Assistant Secretary  
of the Board of Education.*  
**THE LIBRARY OF THE**

JUL 24 1924

PRICE ONE SHILLING.  
*UNIVERSITY OF ILLINOIS*



373.42

1385n

EDUCATION  
COMMITTEE

W.R.O. 15 D.25

## INTRODUCTORY.

---

The following report is based on the results of an enquiry undertaken at the instance of the Plymouth Education Committee during the Autumn of 1915.

The terms of reference guided the enquiry into two principal directions, one, an investigation into the present condition of technical and secondary education in the Borough and the best means of extending and improving it, and the other into the relation of technical and secondary to elementary education on the one hand and to University education on the other.

In the first part of the report will therefore be found a statement of the general principles on which provision for secondary and technical education should be made, the amount of this provision existing at the present time, the deficiencies which still need to be remedied, and the weaknesses which need attention. Certain suggestions for further advance will also be found in this portion of the report.

In the second part an endeavour has been made to show the connection of secondary and technical education with the elementary schools and with higher education, especially in regard to the provision of scholarships, the provision for the training of Teachers, and the possible foundation of a teaching institution of University rank.

24 July 1924 G. D. S.

An enquiry of this comprehensive nature has taken no inconsiderable amount of time and thought. The work has, however, proved full of interest, and if the result is of any value it will be due to the generous and ready help received from the members and officials of the Education Committee, especially the Secretary, from the masters and heads of the various educational institutions, and from my late colleagues the Inspectors of the Board of Education.

For convenience of reference the report is broken up into chapters or sections and has been kept as short as was consistent with clearness of statement. Care has been taken to avoid as far as reasonably possible the inclusion of matter which is already well known to the Authority. The notes on individual schools have accordingly been definitely restricted to information required for the sole purpose of this report, the careful detailed inspections conducted by the Board of Education supplying the requisite facts as to curriculum, numbers, and type of work.

C. A. BUCKMASTER,  
*December, 1915.*

## PART I.

---

THE SUPPLY OF SECONDARY EDUCATION.

By the Act of 1901 County Boroughs were empowered to supply or aid the supply of Secondary Education throughout their area, and generally speaking, these Authorities have shown that they are fully alive to the responsibilities then placed upon them. But the extent of this responsibility is by no means easy to determine. Statistics are wanting as to the numbers for whom provision should be made, the types of schools required, the cost per head of the instruction, and the proportions of the total cost which may reasonably be borne by the parent, the municipality, and the state respectively. Each locality must be content to work out these problems with the data available in its own particular case, aided by such general considerations as the experience of our own or other countries can supply.

The first question which falls to be decided is in regard to the number for whom provision should be made (*a*) in secondary schools of various grades, (*b*) in non-secondary post elementary schools of different types, and (*c*) in day technical institutions, training colleges, schools of art, and higher institutions of University College rank.

Omitting for the moment the varieties of instruction given in evening schools and institutions, it is clear that the scholars for (*a*) and for (*b*) must be drawn very largely from those who have been in public elementary schools or who have received an equivalent to this elementary education elsewhere, while the student for (*c*) will be drawn partly from (*b*) but especially from (*a*). It is, therefore, to the amount of provision of type (*a*) that attention must first be directed.

Estimates have been made from time to time as to the number of boys and girls in particular areas who are receiving some form of secondary education or for whom

some such form should be provided. These estimates vary within somewhat wide limits, depending upon the nature of the area whether rural or urban, county or county borough, well provided with secondary schools or with such provision still in its infancy. The rural counties show the lowest proportions. Thus in Essex in 1909 there were per thousand of the population 4.33 boys and girls in secondary schools, and in Kent 4.44. In Wales in 1904 the proportion was 4.83. The town proportions which are of more immediate interest in the present case, show much higher figures. Thus in 1904 according to Professor Sadler's reports, the proportion per thousand in Newcastle-on-Tyne was 8.45, and in Exeter 15.34. These figures are based upon returns relating to secondary schools under public management only: if private secondary schools are included the figures for Newcastle become 12.67, and Exeter 24.8. As Mr. Sadler has pointed out, the figures for Exeter are somewhat higher but all the other figures are lower than those in similar towns in Germany or in the United States (New York excepted). We shall, therefore, be on safe grounds in placing the figures for Plymouth somewhere between the Newcastle and Exeter figures, i.e., not less than 10 and not more than 15 per thousand. Let us now compare this with the actual conditions at the present time. From returns kindly supplied by the various secondary schools, I find that in schools under public control or under inspection by the Board of Education there are approximately 1,520 boys and girls equal on a moderate estimate of the population of the borough at 210,000\*, as 7.2 per thousand, a proportion decidedly low.

If the pupils in private schools are included, and the number of such pupils over 8 years of age cannot be more than 750, the proportion becomes 10.3 per thousand, a figure again below the proper proportion. It seems therefore clear that the number of boys and girls receiving adequate secondary education in the borough should be increased, and that to some considerable extent. Were the proportion per thousand of the population only raised to 12.5 for schools

---

\* The population at the present time is probably nearly 230,000.

under public control or public inspection, the number of pupils would be increased by 1,100. Even if we include among our secondary school population all those who are receiving education in the higher elementary schools, the junior technical schools, and the Regent Street School for the dockyard examination, we decrease this total by some 700, but still leave a compact body of 400 unprovided for. Moreover, as will be easily seen by the figures, for each rise of the proportion per thousand by one unit at least an extra 210 must be added to the secondary school total.

Let us now approach the problem in another fashion. The age for secondary education may roughly be divided into two periods, viz., 13 to 16, and over 16, the former being the period of vital importance. Now it will be found from the census returns of 1911 that there were at that date in what is now the extended borough, 7,858 boys and 7,094 girls between the ages of 13 and 16, and 4,179 boys and 3,538 girls between 16 and 18. I have not been able to obtain the figures for the East Stonehouse area, but at that date there were in Plymouth and Devonport 4,227 boys and 3,078 girls of ages between 13 and 16 in some employment, thus leaving 3,631 boys and 4,016 girls between these ages as without employment. Another table of the census returns classifies the population as at school or without specified occupation, and gives for Plymouth and Devonport totals of 3,161 boys and 4,410 girls between the ages of 13 and 16. These figures differ from those immediately preceding, but are of the same order of magnitude. Without making allowance for the increase in these figures which the inclusion of Stonehouse would produce, it seems clear that there are available for some form of education between 7,500 and 8,000 children. Many of these boys and girls will have been still in attendance at elementary schools\*, but there will still be a body of at least 4,000 children who could be receiving some form of education other than elementary. Calculations based on these figures give a ratio of 19 per

---

\* At the present time there are 1,700 boys and 1,540 girls between the ages of 13 and 15 in the elementary schools of the borough.

thousand in the present population. This result is approximately half as much again as the figure suggested in the preceding pages, but it must be remembered we are now including not only those boys and girls available for secondary education but also those who should receive a post elementary education not in secondary but in junior technical schools.

It will, however, be some time before the whole of this potential material can be utilised, and it will be sufficient for the present to estimate the immediate requirements of the borough on a somewhat lower scale, and I would suggest that provision should be made for the secondary education in schools under the Authorities or in intimate relations with it, of not less than 1,800 boys and girls. In the junior technical and commercial schools which are not of secondary school types, provision should similarly be made for not less than 1,200 of both sexes.

#### THE GENERAL PRINCIPLES OF SECONDARY EDUCATION.

Secondary education is not a completion of an imperfect elementary education. It is a training to a large extent complete in itself, even though it may be carried further in the Universities or Technical Colleges, or have its beginnings in the elementary school, preparatory school, or kindergarten. It aims at giving a general training in those branches of knowledge which best serve to strengthen the reasoning powers, cultivate the taste, and discipline the character, without definite bias towards preparation for any specific occupation or industry. The more thorough the secondary education is the more ready should the pupil be to assimilate the special knowledge he may require for his life's work. Unless this is one of its effects, secondary education is falling short of its ideal.

It follows, therefore, that as different occupations call for their followers at various stages in adolescent life, so secondary education must be of more than one type so as

to supply the trained material at the best age for the occupation in question. A secondary school, where the leaving age is normally 18 or 19, will, therefore, have a different curriculum and aim from that of another school, where the leaving age is 16 or 17. We have thus at once two markedly different types of secondary schools. The age distinction draws other distinctions in its train. It is obvious that the parent who can afford to retain the boy or girl at school till 18 or 19 is as a rule better able to bear the burden of education than another whose children must begin to earn their own living at 16. Hence, a differentiation of fees between the two types of school is reasonable, but to secure the possibility that the longer training shall be feasible, irrespective of a parent's means, it is necessary there should be a system of scholarships by which promising students can be drafted to a school of the particular type to which their ability justifies admission.

Broadly speaking, these two types of secondary school are sufficient, and do not appear to need further differentiation. But in addition to these two types of school, further provision is necessary for those boys and girls whose parents are ready to make some sacrifice in order to enable them to continue their elementary school education for a further period. As a general rule, then, those parents who can retain their children at school till they are 16 years of age or over should be urged, and encouraged, when necessary by scholarships or exhibitions, to send their boys and girls to the secondary schools. But for those who cannot do this, yet can keep their children at school till 15 or over, a certain number of schools with curricula adapted to these special circumstances are required. In Plymouth the great influence of the Dockyard Examination determines one form of this curriculum, the requirements of commercial life another, and the training for home life a third. Further investigation may bring to light additional groups whose wants can be similarly supplied, and such groups are already in evidence in the borough, as the Junior Trade School in Dressmaking clearly shows.

These post-elementary schools are not inferior secondary schools. They are schools with methods and ideals of their own, giving as far as it goes a training complete in itself. Transition from these schools to other secondary schools will be rare, and while it should not be actually impossible, it should not be encouraged by scholarships or exhibitions. Whatever rewards of this character are assigned to these schools should carry on the pupils either to the higher and more specialised work of domestic centres, day technical courses, or evening classes.

Fees should be charged in these schools both to assist in defraying the cost and also to emphasise the value and the voluntary nature of the training, but an ample supply of scholarships should be provided so that no fit boy or girl in the elementary school need cease their education at the critical age of 14.

Scholarships, like the schools, should be of various types. The great majority should simply carry free admission to the schools to which they are assigned. Others to the secondary schools might reasonably carry a small money payment for books when these are not provided by the school, or for travelling.

A few maintenance scholarships are often of great benefit but the difficulty in awarding them satisfactorily is immense. They cannot be wisely granted merely on the results of a competitive examination, nor should they be granted to any one who cannot pass the scholarship examination with credit. The better way is probably to allow such scholarships if awarded at all to be allotted among the more successful candidates by a small enquiry committee who would have before them a statement as to the parent's means, and other relevant information. The holders of such scholarships should not be specially distinguished from their fellows who have simply gained scholarships of the free place type.

The question of maintenance scholarships becomes more acute when dealing with the transfer of boys or girls from the first grade secondary school to the Universities or Technical College. Whether we like it or not, it seems clear

that no undergraduate at Oxford or Cambridge can derive from the University the real benefit it can confer unless he can afford from £130 to £150 a year for three, or possibly four years. Oxford is a little more expensive, and the course relatively longer than Cambridge, *i.e.*, it is possible for a student of good ability to complete his Cambridge course somewhat quicker and at somewhat less cost than his Oxford contemporary. Hence, unless the leaving scholarships to the University are of high value they require supplementing either by the parent or from some fund available for the purpose.

If anything is done in this direction it must be done thoroughly. It is no good to offer a parent, whose boy has won a £50 scholarship either from his school or at the University an additional £10 or £20 unless the parent can then make up the amount mentioned above. Aid if granted at all must be liberal, and should be promised if necessary for four years. I do not recommend the actual establishment of scholarships of this type\*, but I do suggest that the Authority should not preclude the possibility of granting such aid when special circumstances render such a course reasonable.

#### THE AGE OF ENTRANCE TO THE SECONDARY SCHOOL.

It is generally admitted that the school life of a boy or girl in a secondary school should extend over at least a minimum of four years so that if the normal leaving age is 16 then the age of entrance should be not later than 12, if the normal age of leaving is 18 then the age of entrance should be not over 14. I am informed that this latter condition in practice generally obtains in the case of those boys who go to the Plymouth College from the Corporation Grammar School,

---

\* The question is considered further in relation to the proper supply of scholarships in the Borough.

and a similar rule might be brought into being if the Plymouth High School for girls become eligible to receive the selected scholars from the Devonport Municipal Secondary School, the Convent School of Notre Dame, the Corporation Grammar School, or its successor.

It must, however, be repeated that in each case the relative age of 12 and 14 should be looked upon as maximum and beyond that age the transfer of boy or girl from school to school by means of scholarship should be exceptional and not normal. But the head masters and head mistresses of secondary schools would not be satisfied if the boys and girls did not reach them before 12 or 14 respectively. They very rightly desire to have them as early as possible, and there are few secondary schools in the borough or elsewhere which do not in fact possess preparatory schools either as part of their organisation or in close connection with them. The better the reputation of the school the more will parents be ready to send them at an early age to the preparatory or kindergarten departments.

Except in the case of the Higher Elementary and Junior Technical Schools—for which the elementary schools are the direct preparatory departments—all the secondary schools in the borough have a preparatory section to which boys or girls or both are admitted at fees below those normally charged. This need not be altered, but may require control. It is clear a secondary school ought not to develop its preparatory department to the detriment of the regular work of the school, or to the exclusion of suitably trained children of proper entrance age. But there is no evidence that this abuse has taken root in any of the schools, and it should suffice for the present if the Authority determine that the scholarships it grants giving free tuition in the secondary schools should not be tenable earlier than 11 years of age. Below that age all pupils would, except under very special circumstances, be fee paying.

## THE PRIVATE SCHOOL AND ITS POSITION.

Before deciding upon the school provision required to supply adequately the demands for secondary education, it seems only reasonable and fair to take into consideration the quantity and quality of the work now undertaken by the various schools in the borough under private control. But the difficulty of estimating their number and value is enormous. Fortunately, for the present purpose, I have been aided by the careful report made in 1904 on Secondary and Intermediate Education in the old borough of Plymouth. That report contains in Appendix A. a list of the proprietary and private schools in the Borough, and a statement as to the number of boarders and day scholars in attendance. I have endeavoured from the list, from the Post Office Directory, and from help kindly given me by many private school teachers, to determine how many such schools now existed in the enlarged Borough. But I found that to prosecute my enquiries into all these schools would occupy time out of all proportion to the value of the results. Taking the lists already mentioned as a guide it is soon seen that many of the schools mentioned in it had ceased to exist. A few declined to give me any definite information. The remainder, containing all the really important schools for the purpose of this enquiry, were classified into two groups, (a) those now under proprietary management, and (b) those still the property of individuals. Taking the latter group first for convenience sake, I found that the bigger schools for boys contained in 1904, 345 pupils, and in October of the present year 350. It will thus be seen that the number of boys in private schools has, during the past eleven years, remained practically stationary. A similar calculation in the case of girls' schools shows an increase in 1915 over 1904, the number being 346 and 317 respectively, but this increase is largely due to one private school which has been inspected for "recognition purpose" by the Board of Education. If

that school were excluded, the result would be that in girls' education or in boys the provision made by private schools is substantially the same in 1915 as in 1904. But when consideration is given to the group of schools in the list under proprietary control the position in 1915 is very different to that in 1904.

One is now the Corporation Grammar School, three others are under the regular inspection of the Board of Education, and two of these are in receipt of grants from the Board. So far as can be ascertained with accuracy the number of boys in these public and proprietary schools has increased from 239 to 376, and of girls from 477 to 699. It seems impossible to prevent the conclusion that the advantages of the inspection of the Board of Education and the strengthening of public interest in their management has been the main cause of this satisfactory increase. The principal proprietary schools not yet under the inspection of the Board are the St. Boniface College, the St. Dunstan's Abbey School, and the Beaconfield School belonging to the Ursuline Convent. If, as I have every reason to anticipate, these schools were, after inspection, to be recognised by the Board as "efficient," they could with justice be considered as forming part of the available supply of secondary education for the Borough. The guarantee as to "efficiency" which such an inspection affords, cannot, I think, be safely dispensed with in the case of any school whose position is to be considered by a public authority.

In the course of my visits to the private schools it was frequently pointed out that schools of this type perform certain functions in regard to secondary education more effectively than can be done in schools under public control. Working as they do with smaller numbers, they are able to give special attention to the individual boy or girl; directly responsible as they are to the parents of their scholars they can provide their children with the particular training they require; dependent as they are upon the status of their schools for continued existence they are bound to show a fair degree of success in open examination, and for these

reasons they deserve more public appreciation and assistance than they in fact receive. Suggestions were made that the scholarships or free places provided by the Public Authority should be tenable at the privately-owned school, and that the Authority might assist the schools by the provision of laboratories, gymnasiums, baths, playing fields, etc., either free or at a moderate charge. With much of this line of argument, it is impossible not to sympathise. There can be no doubt that the individual boy or girl may, and in certain cases will, receive more special attention at a private school than at a large school under public control. Such special attention in the case of a delicate or backward child may be of great advantage. Moreover, the private school can if it chooses select its material in a different way from that a publicly controlled school must necessarily adopt. It is such advantages which justify the existence of private schools, and will for years to come secure their continuance. But these advantages have to be bought at a price both by parents and by the school proprietors. The parents dispense with the safeguards which State inspection and public control afford, and the proprietor must forego the assistance of public funds as the price of educational independence. For really good private schools which have nothing to fear from investigation, the position is sometimes hard, but for the majority of schools it is the only alternative to a more or less painful process of extinction. I do not think that the Authority would be justified in allowing its scholarship or free place holders to enjoy these privileges in a privately-owned school, yet there can be no objection to the Authority permitting the use of its laboratories and other special buildings by private schools on payment of a suitable rent, provided such user can be granted without harm to the schools under the Authority's control. A private school may be worth preserving, and yet unable to provide itself with the expensive and varied equipment the complexity of modern education renders almost necessary. But the Authority might do more. It cannot legitimately bestow any kind of public recognition on a school unless it has some guarantee other than the

*ipse dixit* of its owner, or a list of school successes, that the education given therein is really sound. But it can, and I think should, afford the school an opportunity of giving this guarantee by offering to pay the cost of inspection by the Board of Education, or by a University, if, after a preliminary enquiry, it considers such inspection necessary.

The private schools in the Borough would then in time be graded into 4 Classes :—

- (1) Those—probably the numerical majority—which after preliminary enquiry were either too small or too insignificant to render this inspection necessary.
- (2) Those where inspection had been offered and declined.
- (3) Those where inspection had been accepted, but recognition as “ efficient ” refused.
- (4) Those which had been inspected and declared “ efficient.”

Class 4 Schools would then be looked upon as an integral part of the secondary school provision of the Borough without further question. The schools in Class 3 would then have to be considered on their merits. It might be that recognition as efficient had been refused owing to some remediable defects. If so, when these were set right, the school in question would come under the same category as those in Class 4. The schools in Classes 1 and 2 would not be considered in estimating the secondary school requirements of the area. They would simply be left alone till national consciousness has sufficiently awakened to regularise or reform the position of the private school teacher.

Encouragement should also be accorded to schools of Class 4 to convert their private ownership into an educational trust on which the Authority could be represented, whenever local circumstances rendered such a favourable solution possible.

## THE SECONDARY SCHOOLS UNDER INSPECTION.

These at present seven in number, five are in receipt of grants from the Board, one is a small but good private school. These schools form the effective provision for secondary education which the Authority has first to consider before deciding on any increase to the schools already under its control.

I purpose, therefore, to give a few notes on each school in regard to its position in the educational scheme, its special merits and defects, and the way in which these defects might best be remedied.

It will be seen that such defects are more concerned with the fabric of the schools than with the teachers. The personnel is distinctly good and as far as I could judge most conscientious and devoted, but the work of the teaching staff is, with few exceptions, carried out under great difficulties. The need of new accommodation in more than one instance is painfully apparent, and to supply this need must be one of the more immediate tasks of the Authority.

### PLYMOUTH COLLEGE AND MANNAMEAD SCHOOL.

This school, by its position, its history, and its present work, is clearly entitled to be considered the first grade school for boys for the Borough. It is unnecessary at the present day to demonstrate that a first grade school is, both for boys and girls, an integral part of any complete scheme of secondary education. One school for each sex must be available where pupils can remain normally to the age of 18, and where the curriculum is arranged with this as its definite objective. Plymouth is unfortunate when compared with most of the other historic towns of England in having practically no endowed school or ancient educational endowments which might in whole, or in part, supply the needed grades of secondary education in the way which can be

observed at Birmingham or Norwich, to name but a couple of examples.

It has been left for our modern days to fill the gap, and this has been done by peculiarly modern methods. In the case of Plymouth College, and in the corresponding case of the Plymouth High School for Girls, a proprietary company has attempted to provide this type of school. The attempt was a noble one, it has achieved a certain degree of success, in that both schools are in vigorous operation and doing good educational work, but hampered with debt and constantly reminded how precarious is their financial equilibrium. The grant of £500 a year made to the Plymouth College by the Corporation has, I believe, been of the greatest benefit to the school, and has, by the relief it has given, materially contributed to the present degree of excellence the school has attained. Nor has the benefit received been solely on the side of the school. The practical incorporation of the College into the educational system of the Borough, the opening of the College to scholars from schools under the control of the Education Committee, and the inclusion of representatives of the Corporation on the governing body, are valuable benefits to educational efficiency and completeness, and I have no hesitation in recommending that this grant should be continued. But the College still requires extension and development before it can be looked upon as all that the first grade school of the enlarged Borough should really be. The present lack of adequate class room accommodation needs to be supplied in the near future. At least two such class rooms are even now necessary, while the staff in normal times should, for the present number, receive the addition of at least one master. In a school of this type it is not possible to arrange the staffing by the simple process of dividing the total number of boys or girls by an arbitrary factor of 20, 25, or 30. Regard must be had to the character and variety of the subjects taught, bearing in mind that freshness and incisiveness in teaching cannot be secured, unless the teaching staff have time to prepare their instruction and deepen their own knowledge.

I would, therefore, recommend the Authority, when a fitting opportunity arises, to assist the College in providing this addition in personnel and material, for the completion of the present buildings substantially on the lines originally planned should always be the object of the school Governors. It will clearly be impossible for many years to come to raise money or loan to pay off the existing mortgage debt, but its gradual extinction by devoting a certain annual sum to the purpose should not be forgotten, and in this necessary but uninspiring work private benevolence and corporation assistance might go hand in hand.

The Plymouth College and Mannamead School, to give it the former full title, is at present the only first grade school for boys in the Borough. Its nearest rivals would be Kelly College, Tavistock; Exeter Grammar School; and Blundell's School, Tiverton. Clearly none of these can adequately supply the demand from the Borough for the highest form of secondary instruction, and the efficiency of Plymouth College is therefore of vital interest to the Borough.

The system by which promising scholars from the Corporation Grammar School are drafted on to the College appears to be working well. It should of course now be extended to include the Devonport High School for Boys. The College is fortunate in being placed in a position easily accessible from all parts of the Borough, and in having an excellent playing field at its doors.

#### PLYMOUTH HIGH SCHOOL FOR GIRLS.

This school from its position, its buildings, and its standard of work appears to be well adapted to supply for girls' education in the Borough, a similar position to that which Plymouth College occupies in the case of boys. Unfortunately, under its present form of government, it would not be accepted by the Board of Education as eligible to receive grants, nor to be included as satisfying those minimum conditions of public representation which the Education Committee should require.

If it were possible to reconstitute the governing body of the school, with the advice of the Board of Education, on lines similar—not necessarily identical—with those already secured in the case of Plymouth College, with representation by the Education Committee on the reformed governing body, the Committee might then consider the advisability of assisting the school in its work, either by an annual grant or other form of financial assistance. The school is at present burdened with a heavy mortgage which hampers its educational efficiency, and causes constant anxiety and fear for the future, both to the Head Mistress and the Staff, and to the proprietors. The public spirit which has been shown in the founding and erection of the school, deserves eulogy. Is it too much to hope that those who have made sacrifices for the school in the past will not now hesitate to do what they can to ensure it a permanent place in the great edifice of Plymouth Education? To suggest definite details would, I am convinced, be more likely to imperil than to secure this result. Such details can only be worked out by conference between the present governing body and the Education Committee. I have reason to believe that negotiations of this type could be undertaken without difficulty, and carried through with success if an earnest desire on both sides to find ground of agreement can be assured. Failing a successful issue it will be advisable for the Committee to see whether some other secondary school for girls should be utilised as the crown of the secondary school system or a new school founded for this particular purpose, when opportunity allows.

The High School for Girls has been inspected by the Board of Education with favourable results, and will, I understand, be again inspected in due course.

To obtain full grants from the Board it would be necessary for the school to receive a certain proportion of scholarship (or free place) holders from other schools in the town. This proportion might at first be as low as 10 per cent., and the requisite scholarships might be awarded principally by competition open to eligible candidates from the Devonport Municipal Secondary School, and the Corporation Grammar School.

CORPORATION GRAMMAR SCHOOL,  
NORTH ROAD.

This mixed school at present occupies buildings originally erected for elementary school purposes. The co-education of boys and girls in this school does not appear to have excited any warmth of enthusiasm either on the part of the teachers or the parents. It appears so far as can be ascertained, to be accepted as a more or less present necessity and not as a deliberate educational policy. I must confess that, while in favour of co-education as a general principle, I do not think it is or can be successfully applied here, and I unhesitatingly recommend that as early as possible the girls should be provided with a separate school building under an independent Head Mistress. Such a school would be of the type and curriculum of the Devonport Secondary School for girls. The age limit, the school fees, and the condition of entrance would be alike. The new school would be placed where most accessible, to the eastern and north-eastern portion of the enlarged Borough, while the Devonport Secondary School for Girls would serve the western and north-western areas. The friendly rivalry thus set up would be beneficial to both schools and conduce to keep both in a high state of efficiency. It must be confessed that the Corporation Grammar School has not the standing and reputation it ought to have. The reasons for this are obscure, but I think they are due partly to its character of a mixed school, partly to its occupation of elementary school premises, with the inevitable result that it seems to rank as an elementary rather than as a secondary school, and by the large proportion of its teaching staff which in recent times were drawn from the ranks of elementary school teachers. Needless to say, I do not for a moment suggest that these elementary teachers are not thoroughly efficient. I merely wish to emphasise the obvious fact that a school staffed mainly by elementary school teachers does not become a secondary school by merely extending the age limit and teaching Latin. I give this extreme illustration not because it is closely applicable to the

circumstances of the Corporation Grammar School, but because there is sufficient colourable likeness to have prevented the full growth of confidence on the part of parents as to the bona fide secondary character and tone of the school. The use of the school playground and the school workshop for elementary school classes, also tends to confirm this misunderstanding of the real aims and status of the school.

When the girls have been removed to a school of their own, the school may be expected to improve. Possibly in a not remote future, the present buildings may be again required for elementary school purposes, and by this happy necessity the Corporation Grammar School may, for boys as well as for girls, find a building specially its own and definitely planned from the first as a secondary school.

#### DEVONPORT HIGH SCHOOL FOR BOYS.

This school, originally in private ownership, was transferred to the Devonport Authority in 1906. The premises were built for and occupied for some time by a girls' school, but have been used as a boys' school since 1899. As stated elsewhere, a new secondary school for the Devonport side of the Borough is urgently required, so that the girls' school at present carried on in the Technical School may have quarters of its own. As a new building must therefore, be provided it is worth careful consideration whether it would not be better to build a new boys' school on a site where larger playground accommodation can be secured and utilise the present Albert Road buildings for the girls' school. In any case minor alterations in the present premises will be found necessary as the offices require enlargement.

The High School is doing excellent work, and is extremely well attended. It is clear that there is a large demand for the kind of secondary education the school is so successfully supplying. There is no overlapping or waste of effort in doing here what can be more suitably done elsewhere, viz.: the preparation for the Dockyard examination.

## DEVONPORT SECONDARY SCHOOL FOR GIRLS.

This very successful girls' school is housed at present in the Technical School premises. I am not surprised to find that the arrangement has been commented upon severely by the Board of Education, for it is not easy to imagine a more unsuitable state of things. Neither the girls' school nor the Technical School can do themselves credit so long as the present makeshift arrangement continues.

It should be a matter of pressing urgency to provide this school with a building of its own, and set free the Technical School building for the use of a junior Technical School by day, and for evening classes at night. I need not detail the inconvenience and conflict of authority which the present dual occupation inevitably entails. The more successful the evening classes in variety and specialization; the more the girls' school grows in number and in consciousness; so much the greater will these difficulties become. It is imperative that the school should be moved elsewhere at the earliest possible date.

The present type of curriculum is a suitable one, and enables the school to be fitted into the proposed general organisation for secondary education without material modifications. There are at present over 320 girls in attendance, and this number should not be largely exceeded. The personal influence of the Head Mistress is an important factor in the training girls receive in a secondary school, and even so admirable a head as the school has at present cannot personally know and influence an unlimited number. For this reason alone, though there are many others, it will be found necessary to have an additional girls' school of similar type to provide for the legitimate requirements of the Borough. Arrangements should be made, when the position of a first grade school for girls is decided, by which selected girls from these two schools could pass on to the first grade school at an age not later than 14 or 15, by means of scholarships similar to those now available to the Plymouth College from the Corporation Grammar School.

## CONVENT SCHOOL OF NOTRE DAME.

This excellently managed Roman Catholic school performs a very important part in the secondary education of girls—the school not being by any means confined to one religious denomination. It is regularly inspected by the Board of Education, receives the higher rate of grants as a school drawing a suitable proportion of its scholars from elementary schools, and has a fair number of older scholars preparing for the teaching profession. The premises are good, and as the Authority is already represented on the Governing Body it does not appear to require further comment.

## ST. MICHAEL'S HIGH SCHOOL FOR GIRLS.

This is a small first grade school housed in a fine old mansion situated in a quiet part of the Borough, and ready of access by rail or tram. The last report by the Board of Education bore evidence to the good work done by the school.

It is a boarding as well as a day school, and I fear that in neither aspect is it likely to grow to any marked degree. It cannot, therefore, be considered as likely to adequately supply the reasonable demands for first grade girls' education in the Borough. I was informed that the school is worked in intimate relation with a corresponding school at Tavistock, and the reputation of that pleasantly-situated country town will be likely to deplete the boarding element here.

## THE DOCKYARD EXAMINATION.

This examination is the determining factor in the organisation of post-elementary education in the Borough, so far as the boys are concerned. Their future interests are so largely bound up with success in, or in preparation for, this examination that the examination itself forms the most salient feature in the educational position of the Borough.

At present the great majority of the successful candidates come from the Regent Street School and the Devonport Higher Elementary School, but a small number comes from other centres. Of these the Stonehouse Town Hall school is the most important. In view of the raising of age for the examination to 15, I do not see how any public elementary school can any longer retain boys until the examination without infringing the regulations of the Code, and it will therefore, be desirable to draft prospective candidates from all the elementary schools in the Borough into the two centres specially set apart for the work, viz.: Keppel Place, and Regent Street.

The work of preparation for this examination will also become very difficult in the Cornwall districts immediately adjoining the Borough, viz., Saltash, Millbrook, and Torpoint. Towards these districts Plymouth should, I think, extend a helping hand in educational matters. Their growth is due largely to the growth of the Borough, their interests are bound up with the interests of their great neighbour, and many of their occupants earn their living in Plymouth, using their Cornish home as a sleeping place. They cannot of themselves provide the full educational equipment which is necessary, nor do I think that the County of Cornwall could easily do so for them. It seems, therefore, only reasonable that boys and girls from these districts should be admitted to the Plymouth schools on reasonable conditions. The differential fees which may rightly be required in such cases should be fixed after taking into account the amount of Government grants which may be receivable as well as the cost per head of the education actually given.

The present regulations and charges made in regard to students from Cornwall and Devon districts attending the various grades of School in the Borough do not seem to me unreasonable, and I would, therefore, only recommend that they should be revised and systematised on the general principle mentioned above so as to apply uniformly over the Borough.

The great importance of the dockyard influence on the educational and industrial life of the Borough is well under-

stood, and needs no emphasising. Its relation to school life and juvenile employment stands out prominently in the census returns of 1911. Thus at the ages of 13 and 14 the percentage of boys and girls employed in some occupation other than attending school is greater in old Plymouth than in Devonport.

In 1911, while there were no girls of 13-14 in industrial employment in Devonport, 10 per thousand were so employed in Plymouth. The corresponding rates per thousand for boys were 26 and 35 respectively.

At the age of 14-15 there were 210 girls per thousand employed in Devonport, 290 per thousand in Plymouth. The figures for boys were 363 and 481 respectively.

Up to this age, then, boys and girls in Plymouth get employment sooner and in greater proportion than in Devonport, but as regards boys the position changes abruptly at the age of 15-16. We have now 768 boys per thousand employed in Devonport against 726 per thousand in Plymouth. At 16-17 the proportions are 959 and 869 respectively. Practically after the age of 16 all but a small minority of Devonport boys are in some occupation. The number of boys per thousand employed in Plymouth is now for each year of age less per thousand than in Devonport.

In regard to girls the excess per thousand employed in Plymouth continues each year during the whole of adolescence. Thus at 17-18, 701 girls per thousand are in employment in Plymouth, 630 per thousand in Devonport, at 19-20, 717 per thousand in Plymouth, 655 in Devonport.

It is thus clear that so far as the Devonport portion of the Borough is concerned the number of boys to be provided with secondary education beyond the age of 16 is relatively small. This is also made clear from another table in the census return when the total number of unemployed males between the ages of 16 and 19 is given as 132 for Devonport, and as 233 for Plymouth. Of unemployed of the other sex between the same ages there were in Devonport 663, and in Plymouth 993.

The figures for the East Stonehouse area are excluded from consideration as they are not obtainable from the census

returns, being merged in the statistics for the County of Devon, but they would not affect the main argument that in boys' education in Devonport the influence of the dockyard and its entrance examination is paramount ; that in old Plymouth this influence is great but not nearly so overwhelming ; and that while the provision for education above the age of 16 in the case of boys is on the whole adequately met by existing institutions, there are large possibilities of development in the case of girls. Courses of domestic training as a whole or in specific subjects, courses in art and literature, together with attendance at the first grade girls' schools both under public and private management, should supply the educational needs of the large numbers given above.

#### THE HIGHER ELEMENTARY SCHOOL FOR BOYS, DEVONPORT.

The boys' department of the Higher Elementary School is one of the two institutions which are specially concerned with the preparation of candidates for the boy artificer and dockyard examination. The school has been working for some years under the Higher Elementary School regulations, but these regulations having been drawn up to meet very different conditions to those necessarily prevailing at this school have not in practice been found convenient. I have been brought to the conclusion that it will be desirable to terminate the conduct of the school under the H.E.S. Regulations, and to apply for recognition and grants from the Board under the regulations for Junior Technical Schools.

There will be found practically no difficulty in showing that the curriculum now adopted by the school complies substantially with these regulations, but before making any change or modification it will be advisable to secure the consent of the Board to preparation for the Dockyard examination in accordance with the provisions of Art. 6 (b)\* of the Junior Technical School Regulations.

---

\* 6 (b) no pupil may be allowed without the express consent of the Board in advance to enter for any examination in secular subjects other than one confined to pupils of the school.

I do not anticipate that the Board will withhold this consent since schools at Chatham, Portsmouth, and Gillingham which prepare for the Dockyard examination have already been accepted by the Board as "Junior Technical Schools." In this connection it may be worth while to indicate the type of time table and curriculum which have already been thus accepted.

Such schools may be organised to give either a two year or a three year course. It will, I think, be better to provide at once for the latter, and to give from 28 to 30 hours a week. English, History, and Geography would then receive from 5 to 6 hours per week, Mathematics 5 to 7, Chemistry, Physics, and Mechanics 6 to 8, Drawing 4 or 5, Physical Exercises 1 or  $1\frac{1}{2}$ , and Manual Instruction in Wood and Metal 2 to 6.

The only subjects which may cause trouble in the above outline is the one last mentioned, viz., Manual Instruction. The general value of a training in the use of common tools and in accuracy of workmanship with them cannot, I believe, be over-estimated. It is, however, of the greatest importance as an educational training, not for those who are to become skilled craftsmen, so much as for those who but for this training might never use their hands for constructive work. Boys passing from the Plymouth schools into the Dockyard and distributed among the many trades there in operation, must, for their own sake, and for the sake of the yard, acquire as rapidly and as thoroughly as possible the special technique each trade requires. Unless therefore great care is taken, the methods inculcated in the school workshop may be positively detrimental to the progress of the new hand in the Yard. A boy may, therefore, have much to unlearn from his school workshop experience unless great care is taken in the choice of methods and of instructors. I would, therefore, suggest that any course of manual instruction for this or for the Regent Street school should be framed as far as possible on the lines the Dockyard Authorities would advise, and be given by teachers familiar with Dockyard practice. Instruction so arranged could be just as sound educationally as a more theoretic course, and would

mitigate or remove the distrust often felt and expressed in the workshop as to the value of the manual training of the school. In any case I would suggest that not more than 3 hours per week be given to manual instruction.

The financial result of the conversion of this Higher Elementary School into a Junior Technical School would not prove unfavourable. A grant of £3 per head would be payable on account of each boy "under 13 on the day preceding the school year" (and of £5 per head on account of those over that age—Art. 4 (a)). The amount of such grant calculated on present ages and numbers could scarcely fall short of £1,200.

#### HIGHER ELEMENTARY SCHOOL FOR GIRLS, DEVONPORT.

The strong inducement which leads parents to send their boys to the two schools preparing for the Dockyard examination has no corresponding effect in the case of girls, and the number of girls at the two corresponding schools is at least 100 less. To some extent the attraction of the private schools accounts for a certain amount of this decrease. The secondary schools also claim a number of girls whose brothers are in one of the dockyard examination schools. But in spite of these drawbacks there are at the present time 282 girls in the school of whom 167 are free scholars, and 115 fee paying. Most of the girls are, however, in the first and second year of the Higher Elementary School course, only 44 of the whole number being in the third year or over. This is an unduly low proportion, for some of these are only retained by a lenient and temporary relaxation of the regulations. It is, therefore, not necessary to continue the school as a higher elementary school. So much of the work as would fall outside the scope of a good elementary school could be taken over by the proposed commercial classes for girls, the junior technical school for domestic science, or dressmaking, or by one of the secondary schools. The personality of the present Head Mistress is a potent cause of the popularity of the school, and

the low fee (6d. a week) draws a certain number who would otherwise go to a Secondary School

The school might be continued under the Elementary School Regulations, as what is known in London as a central school, retaining its scholars by special permission to the age of 15, or alternatively, it might be re-organised as a third grade secondary school. For the present I am disposed to prefer the former arrangement.

#### REGENT STREET DAY TECHNICAL CLASSES.

The classes at this centre which now are organised to prepare boys for the Dockyard and Boy Artificer examination should cease to be conducted under the provisions of Art. 42 of the Technical School Regulations, and be re-adjusted so as to comply with the Regulations for Junior Technical Schools, and to receive grant under those rules. This would entail no financial loss in annual grant. Calculated on the present number in attendance at these classes, and not taking into account boys in the commercial section of the school, the grant might be estimated at about £700. I see that in 1913-14 the whole school—presumably including the commercial section—received nearly £732.

The remarks made as to curriculum (and especially in regard to manual instruction) in the section dealing with the Devonport Higher Elementary School apply here also. The two schools should be organised as far as possible on the same lines, and be inspired by the same ideals.

There now remains for consideration the "Commercial" section of this school. This includes at the present time 90 boys and 24 girls, 29 boys and 7 girls being under 14 years of age, and, therefore, clearly eligible for grant under the Elementary School regulations should such a solution be rendered necessary.

These should be re-organised still more definitely as a preparation for commercial life, the amount of instruction in such subjects being increased. Grant would still continue

to be claimed under the provisions of Art. 42 which the Board of Education has agreed shall be used for the Junior Commercial schools now springing up in different parts of the country. Arrangements should be made to draft into one school all the boys and girls for whom this training is needed. The Commercial school would succeed better if it could be housed in another building, but in view of the more pressing educational need of the Borough, I do not wish to urge this too strongly. Possibly as a temporary measure the Commercial school could occupy part of the Devonport Technical School, so soon as the Girls' School has been provided with a habitation of its own. In any case the distinctions between the Junior Technical schools for the Dockyard, the Elementary School, and the Commercial School should be emphasised by placing each under a separate head though this may not be immediately possible, while all remain tenants of the same building. It will be seen that elsewhere duties have been proposed for the head of the Commercial School in addition to those involved in the superintendence of these day classes.

Some further remarks on commercial education will be found elsewhere.

UNIVERSITY OF ILLINOIS LIBRARY

MAY 24 1921  
JUNIOR TECHNICAL SCHOOLS.

The Board of Education defines these schools as Day Schools organised as part of a system of higher education, and providing a continued full time education for pupils from Elementary Schools in preparation either for artisan or other industrial employment. The Board's grant on scholars in such schools is roughly £3 a year for those under 13 years of age, and £5 for those above 13. The Regulations under which these grants are awarded are drafted and administered by the Technological Branch of the Board.

It will be advisable to conduct under these regulations two or three different types of school. First and most important will be the two schools for boys preparing for the

Dockyard examination. These would be continued in the present premises at Regent Street, and at a suitable centre in Devonport. Probably the Higher Elementary School building in Keppel Place, or a definite portion of it, will be required for this purpose. In addition it will be well to continue the existing Junior Technical School for boys now held at the Tavistock Road Technical School, drafting into it boys who do not intend to take the Dockyard examination, but who do intend to adopt a career where handicraft knowledge will be necessary. The curriculum in the school should be distinguished from the two intended for the Dockyard examination by a distinctly larger amount of manual work, certainly not less than 6 hours per week, and by greater emphasis being given to technical arithmetic and geography.

There should also be at least two Junior Technical Schools for girls. One of these will be the existing Trade School for Dressmaking, which has, I believe, distinctly proved its value as an avenue to the large and important drapery trades. Another Junior Technical School for girls should be maintained in which the training should be definitely related to domestic work. In this school, Cookery and Housewifery will have special prominence, Laundry Work and Needlework being also included, with a thorough grounding in household accounts, marketing, prices of provisions. Instruction should also be given in English and Geography, and in an informal manner in History and English Literature. A school of this type should be housed in a building of its own if such can conveniently be secured. It is sometimes possible to find in a central situation a large old house now disused for residential purposes, which at small cost could be converted into a suitable habitation for a Domestic Trades School. It would be well to start such a school in the eastern half of the Borough, and if, as I confidently anticipate, it becomes successful, then a second one could be opened to serve more especially the western half. I would recommend that the course of instruction be spread over two years, and that girls be admitted when over 13 years of age.

The fees at the Junior Technical Schools should be not less than sixpence, nor more than a shilling per week, and there should be a fair proportion of scholarships from the Public Elementary Schools giving free education.

The Domestic Trades School should be under the control of the Superintendent for Domestic Instruction, and the Head and Assistant Teachers should be directly responsible to her. This should be the case whether the school is housed in a building of its own, or is accommodated temporarily in one of the Technical or Elementary Schools.

#### DAY COMMERCIAL CLASSES.

A great deal of the training of boys and girls for commercial life is given in special institutions which have grown up in recent years in most big towns. These institutions are no doubt effective within certain limits, for their existence depends very largely upon their successes. But they are necessarily compelled to sacrifice the future for the present, and to obtain an early proficiency in a few subjects at the cost of thoroughness. The popularity of such institutions testifies, however, to the real demand there is for such a type of commercial instruction as will qualify boys and girls to get posts as clerks in business houses. The Education Authority has already to some extent recognised this demand by the provision of special classes at the Regent Street School. These classes could be developed to cover a systematic course of training extending over two years in subjects such as Short-hand, Book-keeping, Typewriting, Commercial Arithmetic, Correspondence, and Practice, with one foreign language, English, and Physical Training. Such classes could be conducted under Art. 42 of the Regulations for Technical Schools, under which the Board of Education has already accepted certain schools of which the curriculum has been framed on the lines indicated. The time given to instruction in the foreign language must not be less than 4 hours a week, preferably in lessons of  $\frac{3}{4}$  hour periods, so that rapid progress

may be made, the grammatical work being made dependent on the reading and composition, and not treated as a separate subject. The shorthand should also be taught by a large number of short lessons per week rather than by longer lessons at wider intervals. At least 6 such lessons may usefully be given each week, care being taken in this as in the foreign language, that the teachers are really efficient. Typewriting, unfortunately, entails the provision of a good stock of machines but it is absolutely necessary if progress is to be made that the opportunities for practice under adequate supervision should, when the subject is first begun, be so frequent as to enable rapid progress in fingering to be made. Till this has become automatic, the really valuable part of typewriting instruction can scarcely be undertaken. The proper display of the typed material, the proper punctuation, distinction of quotation, italics, references, and so on, cannot be satisfactorily carried out without a good knowledge of English and some acquaintance with English literature. Typewriting properly taught is not the soulless subject of instruction it is often supposed to be. The classes should be framed to cover a two years course for those entering about 14 years of age, or alternatively for a three years course for those beginning at 13. In neither case should pupils be allowed to enter whose parents desire them to continue at school beyond the age of 16. For such the secondary schools give the proper training, and when the secondary school course is over the special subjects necessary to complete a commercial training can be taken independently.

#### TECHNICAL EDUCATION IN THE BOROUGH.

This may conveniently be grouped into three divisions : (1) The specialised training given to boys and girls of school age in the Junior Technical Schools or Commercial Classes ; (2) The day instruction given in the School of Art, The Navigation School, and the Day Technical Class ; (3) The Evening School Work.

The first of these divisions has been already dealt with as supplying a necessary complement to elementary education, and a substitute for secondary education for those who by circumstances or inclination need a more specialised training than a secondary school can supply.

The instruction comprised under division (2) is on the whole satisfactory, even though the attendance at the Day Technical Classes is low. Outside the Government establishments it is clear that there are few large industries which by their size and importance dominate the industrial position. Thus in the absence of one or two dominant industries, the demand for day technical instruction of a type higher than that afforded in the Junior Technical Schools, and more continuous than that possible in Evening Classes, is not likely to be very large, and what there is will be varied in character. Hence, small classes and comparatively many of them are unavoidable.

#### PLYMOUTH NAVIGATION SCHOOL.

This school has a long and honourable record, having been founded in 1862, and in receipt of aid from the Science and Art Department, and its successor the Board of Education continuously since that year. In the fifty odd years which have elapsed since its first started the mercantile marine interests in the Borough, appear rather to have decreased than expanded, and it is not likely, so far as I can gather from competent advisers, that the number of men and boys adopting a seafaring life will increase. The school is, therefore, not likely to grow very largely in numbers, but it will be able for many years to supply a much needed form of instruction to the limited number of persons who require a knowledge of navigation, nautical astronomy, rule of the road at sea, and other matters connected with the control of steam and sailing ships. Owing to the exigencies of employment at sea, it is necessary that the opportunities of instruction should be readily available so that the existing plan by which the school is open for a large number of hours each week, although the

number of students at any one time is small, is educationally sound, and could not be modified with advantage. The relations between the school and the Education Authority are satisfactory, and I recommend that they be continued on the present footing.

### THE SCHOOLS OF ART AND THE TECHNICAL SCHOOLS.

A "School of Art" by the regulations of the Board of Education is defined as an Institution giving organised courses of instruction in Ornamental and Decorative Arts in day and evening classes. Such a school must be open for 36 weeks in the year for a minimum of 14 hours per week, of which at least 6 must be in the daytime. It is perhaps needless to remark that these figures are the lowest the Board will ever accept, not by any means what the Board may in any particular case consider advisable. With this in view, consideration must be given to the question, Is an Institution of this type required, and if so, is more than one necessary?

There can, I think, be no doubt that a well-equipped, well-staffed, and well-housed School of Art is absolutely required in the Borough. Not only is such an Institution a vital necessity in any complete scheme of education, but in Plymouth there has always been a demand for art instruction, and an art tradition which only needs development. They have not, as in so many cases, to be created. I do not, however, think that two such Institutions are required. In past years, as I have reason to know, the Art instruction of the Borough suffered through being distributed among three rival schools, with consequent frittering of effort and paucity of members in certain classes. I should, therefore, recommend that the principal centre for Art Instruction should be at the Technical School in Tavistock Road, that the whole or greater part of the day instruction should be concentrated at this centre, and that the Art Classes at the Devonport Technical School should be worked under the regulations of

the Board of Education as a Branch School of Art (Art. 49, Tech. Sch. Regs.). Care should be taken in making this alteration that the financial position of the existing Head Master of the Devonport School of Art should not be harmed, but he would be required to work under the general direction of the Head of the Tavistock Road School, to whom would devolve the organisation and supervision of the higher Art Instruction of the Borough.

The proper distribution of the higher technical instruction between the two Technical School buildings is a matter of great difficulty, and the arrangement now proposed must therefore, be looked upon as only a provisional solution. The experience of two or three normal years will serve to correct and revise this arrangement, but the main principle will, I believe, not require alteration. Briefly, it will be best to continue the day instruction now given at Tavistock Road very much on the present lines. I refer here only to the Day Technical Classes for older students, not to the Junior Technical Schools for boys and girls. In regard to these latter I have made suggestions elsewhere. There is at present no day instruction of this type given at the Devonport Technical School, and so long as that building is used as a girls' school, it would be impossible to do so. I do not, however, think this need be regretted. The number of students who can give time during the day for a more or less complete course of higher technical instruction will always be small and accommodation can be found for them at Tavistock Road. The present number of day students is abnormally low, owing to the war, but the average of three years previously is 27, all of whom were over 16 years of age on entry.

The day technical classes can do valuable work in preparation for the Intermediate and Final B.Sc. examinations of the University of London, in providing instruction for the first year of the five year course for medical students, for the science training required by students of dentistry and pharmacy, and, in conjunction with the School of Art, for much of the instruction required by architects, draughtsmen, and designers. In this connection it should be noted that the

Tavistock Road Technical School is already recognised by the Examining Board of the Royal College of Physicians and Surgeons as a suitable place of preparation for the first professional examination in Chemistry, Physics, and Elementary Biology. It would be easy in collaboration with the Plymouth General Hospital to provide for instruction in Practical Pharmacy, and so allow enrolled medical students to pass the whole of this examination before leaving Plymouth for one of the recognised medical schools.

A certain amount of useful training for students who wish to adopt the engineering or building trades should continue to be given, though I do not anticipate there will be in the near future such a large or increased demand for this type of instruction as will justify the Committee in increasing the present opportunities for day instruction. (The question of evening instruction must be considered separately). Apart from the Government works it does not appear that there are large engineering works in the Borough capable of absorbing students when trained, and, what is still more important, of directing the minds of students to that profession and of creating the surroundings necessary to make the training real, by constant touch with the realities of engineering carried out under commercial conditions of efficiency and economy.

#### EVENING CLASSES IN THE TECHNICAL SCHOOLS.

We have now to consider the technical evening classes. And here one is faced with a marked difference in the condition under which the work at the Devonport and the Plymouth schools has been organised.

In the pre-amalgamation period the head of the Devonport Technical School appears to have exercised a very real part in the organisation of evening school instruction, not only in the Technical School but in the Preliminary Technical Evening School at Keppel Place, and in the ordinary evening schools in the Devonport area. I cannot find that a similar

active control was exerted by the Head of the Plymouth Technical School. A certain amount of responsibility appears to have been placed in his hands, but not so definite and far reaching in character as that entrusted to the Head of the Devonport School.

Which of these policies will it be best to adopt for the future ; or should both of them be set aside in favour of something radically different ? I think it is possible to answer this question quite definitely. The organisation of evening school instruction in Borough areas has now been in existence long enough to justify the assertion that to secure proper grading and control, selection of subjects, distribution of students, and harmony of work, it is necessary to have some one person in a position of responsibility if not for all the work, at least for definite sections of it. Such an officer would be required to act in conformity with the general principles of administration applied through the Secretary to the Education Committee, but should have the right of being consulted directly by the Evening School Sub-Committee whose immediate officer he would be.

As, evening school work requires the use of buildings which in the day time may be and probably are devoted to other types of instruction, the employment of teachers who at other times are responsible to other authority, and the sharing of heating, cleaning, lighting, and equipment with others not directly connected with evening school work ; it is clear that tact, judgment, and consideration for others are absolutely essential if friction or ill feeling is to be avoided. Friction of this character has not been unknown, and still, I fear, exists, and it will be desirable by clear definition of responsibility and duties to guard against it in the future. I cannot but feel that had this friction been less the evening class instruction would have improved. I have dealt with this question in greater detail later on.

## EVENING CLASSES IN THE ELEMENTARY SCHOOLS.

The Evening Schools of the Borough are at present arranged in three grades. The first of these grades comprises the 17 centres where provision is made for instruction in elementary subjects preparatory to more special commercial or technical work.

This instruction is arranged, as a general rule, on the "course" system, by which each student is expected to attend a certain definite number of hours per week, and to take a definite group of related subjects chosen for their applicability to the student's general knowledge and present or prospective occupation. The centres are open for three evenings a week for two hours each evening, and students enrolled for a "course" are expected to attend each evening for the whole two hours. The proportion of the total number of students enrolled at these centres who comply with this condition is so high that it is impossible to say that the requirements of three evenings a week is excessive, but I am not altogether satisfied that its enforcement has been altogether favourable to the general interest of evening school students. In saying this, I do not forget that the system as it stands to-day has been elaborated in accordance with the recommendations of the Board of Education and its Inspectors, but there has been elsewhere a tendency to make generally compulsory a system which works best in the case of young students of ages from 14 to 16, but which is less and less applicable as the age of the student increases. The results in the Plymouth schools leave an impression of a too general uniformity of type of instruction with a corresponding uniformity in the type of student.

In the classes for male students which I visited the uniformity seemed particularly marked. Students of age about 16 or 17 were relatively few, and were rarely grouped together in classes of their own. The paucity of numbers no doubt prevented this, but I think the experiment might be

tried of fixing two or three evening school centres specially for older students, with courses of two nights a week only. The present three nights a week organisation should, of course, be generally maintained, with their existing preparatory, industrial, domestic, and commercial "courses." An endeavour might be made at the same time to collect into specially selected centres the "yard boys" from the Dockyard, who by the rule of the Dockyard Authorities are compelled during the first year of their employment to attend evening classes for two nights a week. If this could be successfully accomplished, it would be possible to frame a course specially adapted to these students. It should not be too academic in character, but should interest the student as well as instruct him. Such a course could not be completed effectively in one year's evening school attendance, but, by arousing this interest, voluntary attendance for a second year could be improved. Moreover, when a happier condition of affairs comes into being after war is over, and overtime at the Dockyard less pressing, it might be possible to approach the Dockyard Authorities with success, and ask them to extend the present one year's compulsory attendance to a second year.

The size of the classes visited did not in any case appear excessive. I mention this particularly since evening schools cannot be staffed on the same scale as day schools. A much more liberal allowance of teaching power is necessary, and I am glad to find that as a general rule no modification seems necessary. The classes in domestic subjects, such as cookery, dressmaking, laundry work, seemed to be much appreciated, and to be properly organised. There was a brightness shown by the students at the centres I visited, which left little doubt that the teachers had been able to interest their classes and convince them of the value of the training provided.

The special centre for Telegraph Messenger boys in Wolsdon Street was working satisfactorily. Each boy attends two nights a week, and the school is open for four nights a week instead of the usual three. The classes are run in duplicate so that two different sets of boys are provided for.

The definiteness in the aim of the school and the experience of the teachers combine to make a very successful example of evening school organisation.

The organisation of the evening school work in the Borough must, in a great degree, be determined by the conditions now in existence, and not merely by theoretical considerations. It is undoubtedly the best principle if starting an entirely new scheme to place the responsibility for the whole of the arrangement, control, and supervision of the evening classes under a single head. But owing to the circumstances which now exist, this ideally better plan must be replaced by one which, while sufficiently recognising the vested interests which have grown up, will at the same time give a strong, workable, and effective system. This can be obtained by placing the duty of arranging, controlling, and supervising the whole of the evening classes dealing with the "domestic" subjects—cooking, dressmaking, housewifery, millinery, and so on, whether taught as single subjects or as the component part of a group of related subjects, under the present superintendent of domestic instruction, Miss Farnside. In the same way the classes in shorthand, book-keeping, and all commercial subjects, whether as single subjects or in groups, should be under the present head of the evening commercial school, Mr. A. E. Cook. Similarly the organisation of all the trade and technical classes throughout the whole borough should be entrusted to the present head of the Devonport Technical School, Mr. Templeton. These classes would be so organised as to culminate in the more advanced classes now held at that school, though it may perhaps be necessary to provide a certain amount of accommodation also at the Tavistock Road School. This will increase Mr. Templeton's responsibility. Mr. Burns Brown's work will lie primarily with the day classes, but in addition with the evening classes of a non-vocational character in literary subjects and in pure science which should be carried on at Tavistock Road under his supervision.

The evening class work of the Borough might usefully be put under the supervision of a branch sub-committee of

the Higher Education Sub-Committee, with or without co-opted members, and the officers responsible for the organisation of the various branches of the evening school work should have the right of attendance when matters affecting their department are under consideration.

They should, in fact, in regard to this work, have the status usually accorded to the Headmaster of a secondary school by the Governing Body, where it is usual for the Head to attend and take part in the deliberations but not to vote. If this produces difficulties, either the Head or the Committee must be to blame.

## PART II.

---

THE CONNECTION OF ELEMENTARY WITH  
HIGHER EDUCATION.

Probably the majority of people who have given careful consideration to the problems of elementary education are agreed that the results obtained from elementary schools, un-supplemented by further education of some sort give a very poor return for the time, efforts, and money expended on it. Elementary education is in some way analogous to a mine where the shafts have been sunk till rich paying ore is in sight, but where the necessary further capital to raise this ore to the surface is still required. To get the full benefit from the admirable work done in the years of elementary school life, every possible facility should be given to secure that the knowledge and training already imparted should be strengthened and developed. This can be done in three principal directions; in the secondary school, the trade or domestic school, or the evening class. The greater the total percentage from the elementary school which can be traced into one of these groups, the greater will be the success of the elementary school system. To get the full value of the secondary school training, it is, however, necessary that the scholar should be transplanted from the elementary school before the normal elementary school life has closed. Eleven, twelve, and more rarely thirteen years of age are the critical times for transfer and the scholarship or free place competitions should be so framed as to make 12 the normal age for the average of competitors, with possibly a substantial handicap against those who are older.

For the various types of junior technical or trade school, the competition should be on different lines, and the age of the average competitor be fixed at 13 or over.

## THE BOROUGH SCHOLARSHIP SYSTEM.

The provision of an adequate supply of scholarships is a necessary portion of a properly arranged system of education. There must be ample opportunities for a boy or girl of ability to receive that type of instruction which the ability justifies and circumstances permit. An approximate estimate of the maximum number of scholarships, exhibitions, and free places which should be provided can be obtained in the following manner.

In the first grade schools for boys and girls the scholarship provision might profitably amount to 20 per cent. of the total school attendance.

In the second grade schools this percentage might be higher—at least 30 per cent.—and in the junior technical and commercial schools higher still, amounting to at least 50 per cent. of the number in attendance.

I estimate that for some years to come the attendance in the first grade schools aided by the Authority will not much exceed 250 boys and 200 girls. A possible maximum of fifty scholarships for boys, and forty for girls, would therefore be required, and the cost of these would amount roughly to a little less than £1,500 a year. (The Plymouth College has at present 26 scholarship holders from the Borough, and this more than fulfils the requirements of the Board of Education). For the municipal secondary schools existing, and to be founded, a maximum of 30 per cent. of scholarships is desirable. Some of these scholarships should be tenable at any secondary school approved by the Authority for the purpose, others might be definitely attached to particular schools. Putting the attendance at these schools when full at 600 boys, and 500 girls, 330 scholarships would be advisable, and at least £3,000 would be required for this purpose. As however the cost of maintenance of these schools would be defrayed by the Authority this would mean that if this percentage of free places were filled by fee-paying scholars, the receipts from fees might amount to this sum—not that this sum

would be necessarily paid each year on their account. For the junior technical and commercial schools fifty per cent. of free places should be provided. This is already realised in practice, and could be extended as the junior technical and commercial schools increase in number and size. The only direct payments entailed would be for the first grade schools not directly maintained by the Authority, and for that proportion of the secondary school scholarships of the lower grade which the Authority might agree to be held at any secondary school within the area under the inspection of the Board of Education on the Governing Body of which the Authority was represented. The percentages mentioned might usefully be adopted as a provisional basis, and increased or diminished in the case of a particular school or group of schools, should it be found advisable. Thus the collection of intending teachers into a particular school would tend to raise the percentage in that school, while the great popularity or marked efficiency of another school might conceivably lead to a large influx of fee paying scholars. Care should be taken that the number of scholarships, exhibitions, or free places offered each year is, as far as possible, the same. It will be noticed that in the above estimate, somewhat lower provision is made for girls than for boys. This is because it is impossible to ignore the strong position occupied in the field of girls' education by the numerous private schools, some of which are clearly admirably conducted, and most attractive to parents. As I have stated elsewhere, many parents who are anxious for their boys to attend a big well-worked public secondary school, prefer to send their daughters to a small private school. Whether they are right or wrong in this is no doubt disputable, but it is no use ignoring the fact. The private schools for boys in the Borough cater collectively for a smaller number of pupils, and their influence on the total provision to be made by the Authority is, therefore, far less noticeable.

As already stated, no scholarships are required to take boys or girls from the junior technical schools or commercial classes to the secondary schools, but at least two and, if

possible, more should be provided from the Secondary Schools to a University or Technical Institution of University rank. That is, there should be at least two each year. If these are tenable as they should be, for four years, that would mean a minimum of eight altogether. Their value should be not less than £50 a year, and as soon as circumstances permitted £500 a year should be set aside earmarked for this purpose. Until the full sum is required, the balance might be transferred to the other scholarship or exhibition account, or preferably serve as a nucleus fund for additional maintenance grants for special cases.

I have not dealt with the bursary system since the funds for bursaries for those intending to become elementary school teachers are, in fact, provided and regulated by the Board of Education. Travelling allowances might, however, be made for students attending training colleges outside the Borough, who have been scholars in the public Secondary Schools.

A certain number of free admissions to the evening classes at the technical schools should be awarded to those who have given evidence of a satisfactory two years course of study in the preparatory evening schools. This may be on a fairly generous scale. Exhibitions carrying a money value of £1 and of £2—say ten of the former, and five of the latter—should be awarded among the scholars in the junior technical schools at the completion of their course, with free admission to the Technical School evening classes. This should for the time give the Borough an ample supply of scholarships, exhibitions, and free places. I assume of course that existing prize funds and endowments for scholarship purposes will still be applied, as at present.

## THE FEE CHARGES IN THE BOROUGH SCHOOLS.

A careful examination has been made of the fees at present charged in the secondary schools of Plymouth, both public and private. The schools examined fall into two groups. A small group where the fees range from a maximum of £20 for boys to a minimum of £10 for girls, and a large group with a maximum of £12 for boys to a minimum of £3 for girls. It is scarcely necessary to remark that between schools of the same grade the fees for girls are always substantially below those for boys. Many schools appear also to make a compulsory charge for games, for stationery, and, less frequently, for books. A few charge an entrance fee.

In the schools under the Education Authority there is a marked difference between the fees charged at the Devonport High School for boys and the Corporation Grammar School, the former being by far the larger. On the other hand the fees at the Municipal Secondary School for girls at Devonport are lower than those charged at the Corporation Grammar School, or at the Convent School of Notre Dame, or at the St. Dunstan's Abbey School. As both the boys and the girls Secondary Schools at Devonport are full to overflowing, it is clear that the fees are not the sole determining cause. A judicious increase in the existing scale of fees might be properly made at the Devonport Secondary School for girls. A slight amount might be added at once in the case of all newcomers, so as to raise the normal fee from £4 17s. 6d. to £6 6s. 0d. a year inside the Borough, and to £7 10s. 0d. a year outside. When the school has a new building of its own the scale might again be revised, possibly to a maximum of 8 guineas within the Borough and £10 outside.

The fees for the Devonport High School for boys appear to be paid without demur, and need not, therefore, be altered, assuming that those who now enter at a normal fee of £3 16s. 0d. a term, are allowed to continue at that rate during the whole of their school course.

The Corporation Grammar School fees for boys should in theory be the same as those at the Devonport High School,

but theory is a poor guide in the practical administration of education, and any change in the direction should be very gradual. So long as the school is a mixed one, it is clear that judging from the analogy of other schools in the Borough, either the boys pay too little or the girls too much. But a differential fee between boys and girls doing the same work in the same school is scarcely defensible, and it will, therefore, be best to make little change till a new and separate school is provided for the girls. The two girls' schools for the two sides of the Borough might then charge fees on the same scale and any healthy rivalry between them would not be complicated with any question of the one undercutting the other.

I abstain from making any recommendation as to any alteration of fees at the Plymouth College, or at the Plymouth High School for Girls.

The fees charged at the Convent School of Notre Dame, which is aided by grant from the Board of Education, are reasonable, and do not in themselves cause any improper competition with either of the two Municipally owned Secondary Schools for girls.

There remains for consideration the scale of fees for the Junior Technical Schools. The two at present housed in the Plymouth Technical School, and the two higher Elementary Schools at Devonport charge fees of 6d. a week, or £1 a year. From a quarter to a third of the total number of scholars in these schools are admitted free as the holders of scholarships. Those in the Regent Street Dockyard and Commercial sections are so admitted, and accordingly no fees are paid at that centre.

There are approximately 1,100 boys and girls in these schools, and on a liberal estimate, half of these are fee paying and half free. When these schools are re-organised, the present fee of 6d. a week might reasonably be doubled. This would produce about £500 a year extra, and so tend to decrease the necessary heavy expenditure which will be entailed for the adequate housing of the new domestic schools, and the more specialised teaching suggested for the commercial classes.

## EDUCATIONAL AGENCIES NOT UNDER THE EDUCATION COMMITTEE.

No review of the educational position of the borough of Plymouth would be complete without reference to those activities which are not the outcome of the work of the Education Committee. Reference has already been made to the part played by the private schools in providing secondary education. It now remains to deal with other agencies.

Private establishments for training boys and girls for commercial life and for Civil Service examinations of various grades exist in Plymouth as in other large towns. Their success is due partly to the energy and efficiency of the teachers, partly to extensive and sometimes rather unscrupulous advertising, but largely to the want of confidence in parents and in employers to the possibility of giving a good grounding for business life in the secondary schools of the borough. It will be some time before this prejudice becomes extinct but it can be hastened by taking counsel with employers and finding out what capacities and knowledge they really require in young people beginning commercial life, and by seeing that the organisation and teaching in one at least of the teaching institutions for boys and for girls the curriculum is arranged, and the teaching staff selected, with this special object in view. Some suggestion in this direction will be found in the portion of the Report devoted to the number and grading of the secondary schools of the borough.

The evening classes conducted by the Plymouth Co-operative Society on Co-operation, Industrial History, and Citizenship, although intended primarily for the members of the Society should not be ignored. The large membership of the Society provide a good gathering ground and the subjects are of vital importance. This by no means exhausts the educational work of the Society. Junior classes are also provided for its large staff of employees and courses of lectures are from time to time given on special aspects of modern urban life. I am glad to find that the Education Committee

for the Borough has not ignored this useful work. I understand that the Co-operative Society under certain conditions pays the fees up to 5 shillings for members of the Society attending classes at the Technical Schools. These evidences of mutual assistance are most satisfactory and as occasion serves it would be well to make this connection even closer. There seems, for instance, no valid reason why the dressmaking classes held by the Co-operative Society should not be included as part of the general scheme of domestic training by the Borough Education Committee, and if desired confined to their members. Grants on the classes could then be obtained from the Board of Education and as the State provides money for the definite purpose of fostering work of this kind, it seems scarcely wise not to take it, if it can be done without sacrifice of principle or reasonable independence.

The classes and lectures of the Co-operative Society are also valuable because they deal with matters not directly convertible into a money value. The great majority of evening classes are and must be arranged either to supplement the deficiencies of elementary education or to supply instruction of definite value for future employment. But it is most important that in any large town, where education is realized as being more than a means of improving the money-making value of its citizens, there should be opportunities for intellectual improvement for the sake of knowledge itself. These classes in a large degree are consistent with this attitude and from time to time the Education Committee should endeavour to develop similar classes in connection with subjects that the Co-operative Society may consider outside its own sphere of action.

The University Extension Lectures are an excellent instance of this type and I was glad to find by a personal visit that they appear to be appreciated. The Library and Museum Committee of the Corporation thus assist in the educational work of the borough. Nor is this the only way in which they give assistance. The Museum is used by teachers for instruction purposes. Selected classes are from time to time brought there for a definite lesson on matters for which the

resources of the Museum are likely to give real help. For example, the series of wild flowers exhibited in the Entrance Hall with their common and systematic names are not only most useful for Nature Study, but cannot fail to strengthen the love and knowledge of flowers which is often so weak in the town bred child. The natural fauna cannot be so easily dealt with as the flora but it would be very desirable for comparative purposes if a specimen of the harmless grass snake could be obtained as a contrast to the adders. The study of the Biological Sciences in Plymouth has in past years found a congenial home in the Plymouth Institution which possesses a library with a very satisfactory range of publications in Geology, Zoology and Botany. As access to these books and to the Museum specimens is not hedged round with undue restrictions it is possible for any worker in the Biological Sciences to find in Plymouth all the usual reference literature he might need. But this is not the case where the worker in Chemistry or Physics is concerned. I have been unable to trace the existence of any collection of books and periodicals on these two subjects analogous to that possessed by the Athenæum for Biology and such a worker would at present be seriously handicapped. It may be said with truth that the surroundings and traditions of Plymouth render the Biological locally more important than the more purely experimental sciences, but the objection is more apparent than real.

The worker in one branch may need to refer to investigations published in another and the absence of the necessary literature will then be a positive disadvantage.

As Plymouth already possesses in the Marine Biological Laboratory an institution of world wide importance to which expert workers come not only from the Universities of this country but from abroad, it is clear that conditions may easily arise in which the possession of a good reference library in Chemistry and Physics would be of great value. For the student of politics or history or economics the resources of the Public Libraries, of the Proprietary Libraries in Cornwall Street, and of the Co-operative Society would be available.

It would be of great advantage if a survey of the resources of the borough in regard to its libraries and museums could be made so that exact information would be at hand as to the particular branches of knowledge which were and were not adequately represented somewhere or other in the various collections.

Such a survey would be of high value not only in connection with the present supply of secondary and technical education but still more in regard to those developments of higher education which may take place in the borough in future years.

In this connection might be considered the question of providing special reading rooms and collections of books for juvenile readers and students, either at the present free libraries or in premises specially intended for this purpose.

## FUTURE DEVELOPMENTS OF EDUCATION

It is impossible to outline the future educational development of the borough without feeling that the expression of the educational movement cannot end for all time merely with an efficient system of secondary schools and evening classes. The problems of higher technical work, of the training of teachers, and of instruction of university standard still remain. Of these I do not think any immediate solution is to be found. The Higher technical day training which may be required can be given in the existing buildings of the Tavistock Road Technical School for some years to come, and a re-arrangement of the higher evening school work between the two technical schools will enable the extension of the Devonport School to be postponed until the more immediate needs of the secondary schools are met, when the extension already planned out could be taken in hand.

The growing realisation of the value of training for teachers will render the question of training college accommodation one of increasing urgency.

While nothing can be worse for a community than to staff its schools solely or even predominantly by teachers educated within its bounds from childhood to maturity, it should be possible to avoid this danger even if in the future a training college is established in the borough. It must be remembered that such a building will require premises of its own. It would have to include or be supplemented by hostels for men and for women and ought to be placed in such a position as to render the resources of the existing Technical School, Library, and Museum readily available without loss of time. Adequate provision for sport and recreation would also have to be made. As already indicated, I do not advise that the borough should undertake these responsibilities until the secondary school equipment is completed and until the possibilities of co-operation with Devon and Cornwall have been ascertained.

From time to time a cry is raised that there is or is likely to be in the near future, a scarcity of trained teachers and local Authorities are urged to increase the supply of Training Colleges. Recently the Board of Education published a circular (No. 903, 18th June, 1915) in which many Authorities are gravely warned that the percentage of intending teachers in their areas is abnormally low. While a large number of the Authorities are thus mentioned, it is of interest in the present connection to note that neither Plymouth, Devon, nor Cornwall are involved. Presumably in their case the percentage of intending teachers is not unusually deficient. But the evil is deeper than the Board of Education is as yet prepared officially to admit. No amount of provision of training colleges, no inducements held out to tempt adolescent boys and girls into the teaching profession will attain any lasting success so long as the professional prospects of the teacher are so restricted. The standard required, and rightly required, of the teacher is growing year by year, but the prizes of the profession are still so few and indeterminate that they fail to attract a sufficient number of our best boys and girls. They and their parents feel that almost any other occupation

offers to an able and hardworking youth far greater possibilities for the future, and so long as this feeling exists, the doors of the training colleges may be multiplied and thrown wider open, but the numbers who enter will still remain insufficient even to staff the elementary schools exclusively with trained certificated teachers

The growth of the Technical Schools, the stimulus to teaching of university rank which a Training College could give, would lead to the consideration of the position of Plymouth as a possible new University centre for the West of England. When that time arrives it will be seen that within the reasonable sphere of Plymouth influence there are a number of institutions already doing work of a University or post-University type. I need only mention the Marine Laboratory with its valuable research work, the School of Metalliferous Mining, Camborne, the Agricultural College, Newton Abbot, and the Royal Albert Memorial College, Exeter to show that a federation taking in some or all of these centres would form a working nucleus for a new University. But this is indeed to look to the future rather than the present. The establishment and maintenance of a University College cannot be put at less than £4000 a year and even if the necessary buildings and equipment were supplied by generous donors it would be advisable to secure part of this sum from endowments rather than to make the whole a charge on the borough funds. While therefore the possibility of development should not be lost to sight, yet no immediate steps in this direction need be taken. The re-organisation of the secondary and evening school systems of the borough will not be effected without some years of patient work but they will when completed be a source of increasing benefit to the borough, while the schools themselves will be the pride of a community whose history is one of the glories of England and whose existence is bound up with the greatness of the Empire.

## GENERAL OBSERVATIONS.

In considering the special problems of secondary and technical education it must be remembered that the most complete system of organisation will fail to obtain any really valuable result if it is permitted to suppress the individuality of the schools and their teachers. Too great a uniformity of rules and regulations may be a serious drawback to efficiency and it is not easy to hit the happy mean between too much liberty and too much control. A warning to this effect may perhaps serve to prevent some future disappointments. The various secondary schools of the borough should be encouraged within certain definite limits, each to have a character of its own. Neither in methods nor in time table need each exactly resemble the others. This is even more true in regard to technical education. The development of the junior technical schools, the planning of a scheme of commercial instruction, and the inception of new technical classes and courses all require initiative and experiment, and those responsible for these various types of work must feel that within reasonable limits they are free to exercise their responsibility in this direction. To secure this the merely routine work of compiling forms and statistics should be kept as low as possible. The tendency in recent years of the Board of Education to increase the complexity of its regulations and registration leads me to utter a word of warning in this respect. In education, organisation may work for harm rather than good if its result is to produce one dead level of uniformity.

Another and a very different circumstance also affects the position of secondary and technical education of the borough. And here too we leave the region of surmise for actual fact. It cannot be doubted that there is a very large class of parents sending their children in ordinary course to the elementary schools who are keenly anxious that these children should receive more than elementary education. Such parents happily exist in all localities but from my own

observations and from the much longer observations of my late colleague H.M. Inspector for Elementary Schools, this class is unusually numerous. Moreover the teaching in the schools is backed up by home influence with the result that there is a desire for knowledge and a keenness to do well which is of the greatest assistance to the teachers.

Finally the influence of the Dockyard Schools on the organisation and work of the Technical Schools must not be ignored. Until the time comes when some working agreement with the Admiralty can be formulated—and the time for this is certainly not now—the Technical Schools must to some extent endeavour to arrange their work in friendly understanding with the Dockyard Schools, caring for the wants of those students who are annually weeded out of the Dockyard Schools, supplementing the work done in the dockyard classes and in general striving for co-operation rather than competition.

#### SUMMARY.

The recommendations scattered through the preceding pages may be summed up as follows.

In secondary education the borough requires efficient schools of varying grade both for boys and girls.

For boys there should be one first grade school with an upper age limit of 18 or 19, preparing pupils for the Universities, the Higher Technical Schools such as the Imperial College, and the professions. The Plymouth College supplies the need.

The Corporation Grammar School and the Devonport High School give the necessary provision of secondary schools with a normal age limit of 16 to 17 for boys who from one cause or another are not intended for the University.

The Commercial School at Regent Street and the two Junior Technical Schools preparing for the Dockyard examination with a normal age limit of 15 to 16 would form a third group. With these should be included the more industrial type of Junior Technical School at present carried on in the Technical School in Tavistock Road.

For girls the first grade school would be the Plymouth High School or if this proves impossible, another school of similar grade.

The Devonport Municipal Secondary School for girls and a new school formed from the girls at present in the Corporation Grammar School would provide the necessary schools of the second type. In view of the demand for some form of elementary education at a low fee, it will be probably necessary when the two new girls schools are in working order to provide a third school to take pupils of the type now in attendance at the Higher Elementary School, Devonport and at Regent Street. A specially organised commercial school for girls up to the age of 15 to 16, the Junior Trade School for dressmaking, and a Junior Domestic School or more probably two, would give the required provision of the third type, and complete the network of secondary education. The three classes of schools thus outlined would differ not only in the normal leaving age of pupil, but in the rate of fees.

Ample provision should be made by means of scholarships by which clever boys and girls from the second group of school could be drafted not later than 14, and preferably earlier, into the two first grade schools. Provision of the same kind would not be necessary in the case of the third group, since the education in this case would be framed for a definite object which would not as a rule admit of useful grading with another secondary school.

Suitably qualified pupils from elementary schools would be drafted directly into the schools of the second and third groups as scholarship holders, but all schools should be open to the children of parents who are prepared to pay the fees. Such fees might legitimately be higher for boys and girls outside the borough than for those within.

The schools of the first and second groups would be organised so as to receive grants under the Secondary School Regulations of the Board of Education, while the schools of the third group received grants under the Regulations of the Technological Branch.

There should be one School of Art with its principal home at Tavistock Road, the Art instruction at Devonport being carried on as a Branch of this School of Art.

The day technical classes should be continued and efforts made to extend their popularity.

The evening classes other than the preparatory sections, should be divided into four groups. The higher literary and pure science classes being collected as far as possible into the Tavistock Road School under Mr. Burns Brown, the domestic classes under Miss Fearnside, and the commercial classes under Mr. A. E. Cook, and the remainder of the technical classes except the Post Office classes, under Mr. Templeton.

The Education Authority might usefully ask the Board of Education for representation on the governing bodies of those educational charities on which they are not at present represented.

In view of the great amount of work to be done in completing the necessary supply of secondary education no steps at present should be taken to build a Training College for Teachers. If in the near future such a college should be evidently required it would be well to see if Cornwall and Devon would join in its erection and maintenance under conditions which would give Plymouth the option of repaying its partners the capital sum they might in the first instance have supplied.

On the other hand the establishment of a Training Institution for those who intend to become Teachers of Domestic Subjects, might in the near future be considered. There is no institution of this type nearer than Bristol, and the demand for these teachers is still not fully supplied.

## APPENDIX A.

TABLE I.

Ages of Scholars at some typical Secondary Schools in October, 1915.

## 1.—BOYS SCHOOLS.

	Under 8 years old	8 to 10 years.	10 to 12 years.	12 to 14 years.	14 to 16 years.	Over 16 years.
Devonport High School ... ...	11	53	67	91	74	29
Corporation Grammar School...	—	4	23	74	46	8
Hoe Grammar School ... ...	10	20	42	52	36	12
St. Boniface College ... ...	3	12	21	16	15	2

## 2.—GIRLS SCHOOLS.

	Under 8 years old	8 to 10 years.	10 to 12 years.	12 to 14 years.	14 to 16 years.	Over 16 years.
Plymouth High School ... ...	23	23	20	20	12	10
Devonport High School ... ...	9	11	9	12	11	4
Devonport Mcpl. School ...	12	26	45	103	96	57
Corporation Grammar School...	—	2	16	64	37	6
Convent of Notre Dame ...	46	28	56	36	41	16
St. Dunstan's Abbey School ...	17	17	27	29	28	13

## APPENDIX A.—(continued).

TABLE 2.

Distribution of Scholars according to year of School life.

## I.—BOYS SCHOOLS.

	Less than 1 year.	1 year.	2 years.	3 years.	4 years.	More than 4 years.
Devonport High School ... ...	91	78	59	49	32	30
Corporation Grammar School...	70	33	24	15	6	3
Hoe Grammar School ... ...	51	31	36	22	11	22
St. Boniface College ... ...	24	20	13	7	1	4

## 2.—GIRLS SCHOOLS.

	Less than 1 year.	1 year.	2 years.	3 years.	4 years.	More than 4 years.
Plymouth High School ... ...	28	19	20	20	8	17
Devonport High School ... ...	24	8	9	5	3	8
Devonport Mcpl. School ...	78	71	86	44	39	23
Corporation Grammar School...	55	31	20	13	5	1
Convent of Notre Dame ...	54	71	18	10	16	31
St. Dunstan's Abbey School ...	41	27	15	21	6	21

## APPENDIX B.

## EDUCATIONAL ENDOWMENTS.

The only endowments I have been able to discover as available for educational purposes are the following :—

(1) ELIZA HELE FOUNDATION. Scheme April 16th, 1912. Approximate value £454. Three fourths to Elementary Education and Clothing for Boys, one fourth for Secondary or Technical Exhibitions, apprenticeship, and outfits for boys of whom two-thirds should be chosen from Plymouth.

(2) KELWAY EDUCATIONAL FOUNDATION. Order of Court of Chancery, August 30th, 1907. Approximate value £424. Applicable £399 to advancement in life, and £25 to apprenticing or Senior Exhibitions for Plymouth and Saltash.

(3) ST. BUDEAUX SCHOOLS FOUNDATION. Scheme February 19th, 1889. Approximate value £169. For Elementary Schools, and for Scholarships at Secondary or Technical Schools.

(4) LANYON EDUCATIONAL FOUNDATION SCHEME, September 30th, 1913. Approximate value £116. Three fourths to the maintenance and education of orphans, one fourth Exhibitions Secondary or Technical, or apprenticing or Outfits.

(5) JOAN BENNETT EXHIBITION SCHEME. February 11th, 1910. Approximate value £110 for Exhibitions to Universities.

(6) ROYAL NAVAL AND MILITARY SCHOOLS ENDOWMENTS SCHEME, January 9th, 1915. Approximate value £75. For Secondary School Exhibitions and Apprenticing.

(7) ROWE FOUNDATION SCHEME, February 26th, 1914. Approximate value £23. For Technical Exhibitions.

(8) SKARDON BARRETT SCHOLARSHIP. Will November 9th, 1899. Approximate value £10. For Technical Exhibitions.

UNIVERSITY OF ILLINOIS

MAY 24 1921



SWISS & CO.  
PRINTERS,  
FORE STREET,  
DEVONPORT.

THE LIBRARY OF THE

JUL 24 1924

UNIVERSITY OF ILLINOIS



UNIVERSITY OF ILLINOIS-URBANA



3 0112 062161820